

6X8

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) $6.3 \pm 10\%$ volts

Current at 6.3 volts. 0.45 amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield^Δ</i>	
<i>Triode Unit:</i>			
Grid to plate	1.5	1.5	$\mu\mu\text{f}$
Grid to cathode and heater.	2	2.4	$\mu\mu\text{f}$
Plate to cathode and heater.	0.5	1	$\mu\mu\text{f}$
<i>Pentode Unit:</i>			
Grid No.1 to plate. . . .	0.09 max.	0.06 max.	$\mu\mu\text{f}$
Grid No.1 to cathode, grid No.3, grid No.2, and heater.	4.6	4.8	$\mu\mu\text{f}$
Plate to cathode, grid No.3, grid No.2, and heater.	0.9	1.6	$\mu\mu\text{f}$
Pentode grid No.1 to triode plate.	0.05 max.	0.04 max.	$\mu\mu\text{f}$
Pentode plate to triode plate.	0.05 max.	0.008 max.	$\mu\mu\text{f}$
Heater to cathode	6.5	6.5 [•]	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>		
Plate Voltage	125	100	125	volts
Grid No.3	—	<i>Connected to cathode at socket</i>		
Grid-No.2 Voltage	—	70	125	volts
Grid-No.1 Voltage	—1	—	—1	volt
Amplification Factor.	40	—	—	
Plate Resistance (Approx.). .	6000	—	300000	ohms
Transconductance.	6500	5700	5500	μmhos
Plate Current	12	—	9	ma
Grid-No.2 Current	—	—	2.2	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 20$	—7	—	—6.5	volts

^Δ Indicates a change.



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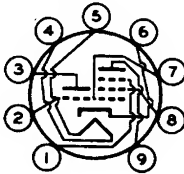
DATA 1
8-60

6X8

Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"
 Maximum Seated Length. 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip) . 1-9/16" $\pm$ 3/32"
 → Diameter. 0.750" to 0.875"
 Dimensional Outline See *General Section*
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9AK

Pin 1 - Pentode
 Grid No.3
 Pin 2 - Triode Grid
 Pin 3 - Triode Plate
 Pin 4 - Heater
 Pin 5 - Heater



Pin 6 - Cathode
 Pin 7 - Pentode
 Grid No.1
 Pin 8 - Pentode
 Grid No.2
 Pin 9 - Pentode Plate

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit
PLATE VOLTAGE	275 max.	275 max. volts
GRID No.3 (SUPPRESSOR GRID) . .	-	Connect to cathode at socket
GRID-No.2 (SCREEN-GRID)		
SUPPLY VOLTAGE.	-	275 max. volts
GRID-No.2 VOLTAGE	-	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section
GRID-No.1 (CONTROL-GRID)		
VOLTAGE:		
Positive-bias value	0 max.	0 max. volts
GRID-No.2 INPUT:		
For grid-No.2 voltages		
up to 137.5 volts	-	0.45 max. watt
For grid-No.2 voltages		
between 137.5 and 275 volts -	-	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section
PLATE DISSIPATION	1.7 max.	2.3 max. watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with		
respect to cathode.	200 max.	200 max. volts
Heater positive with		
respect to cathode.	200* max.	200* max. volts

▲ With external shield JEDEC NO.315 connected to cathode except as noted.

● With external shield JEDEC NO.315 connected to pentode plate.

* The dc component must not exceed 100 volts.

→ Indicates a change.

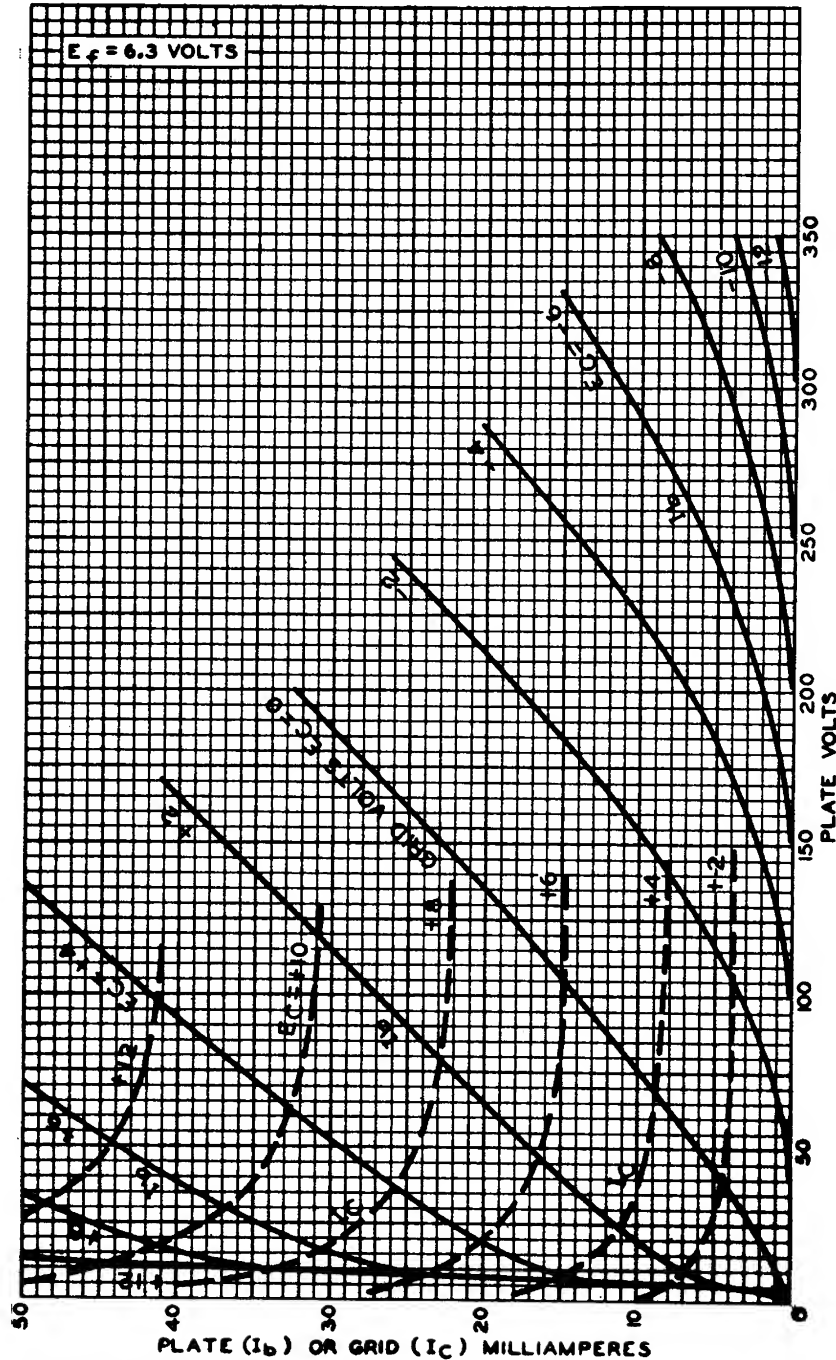
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AVERAGE CHARACTERISTICS
Triode Unit



92CM-7331

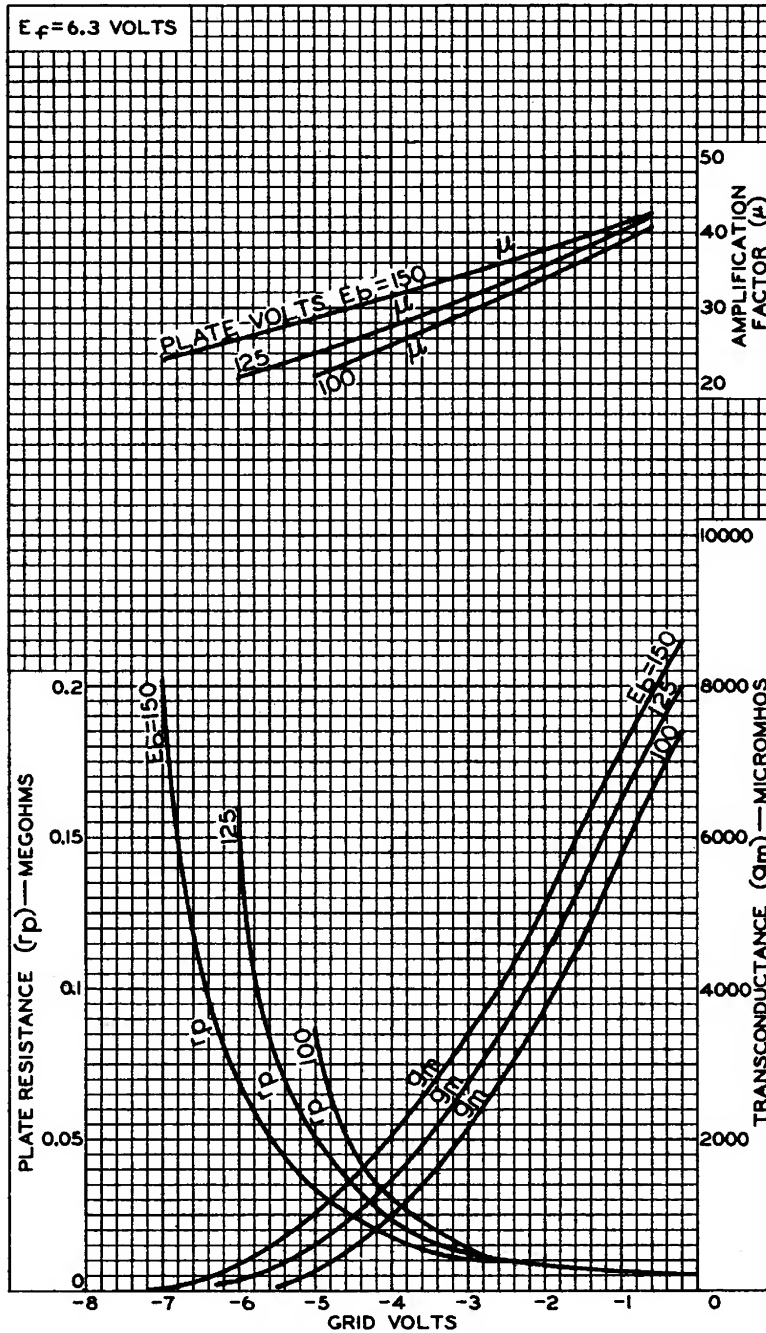


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DATA 2
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AVERAGE CHARACTERISTICS Triode Unit



92CM-10809

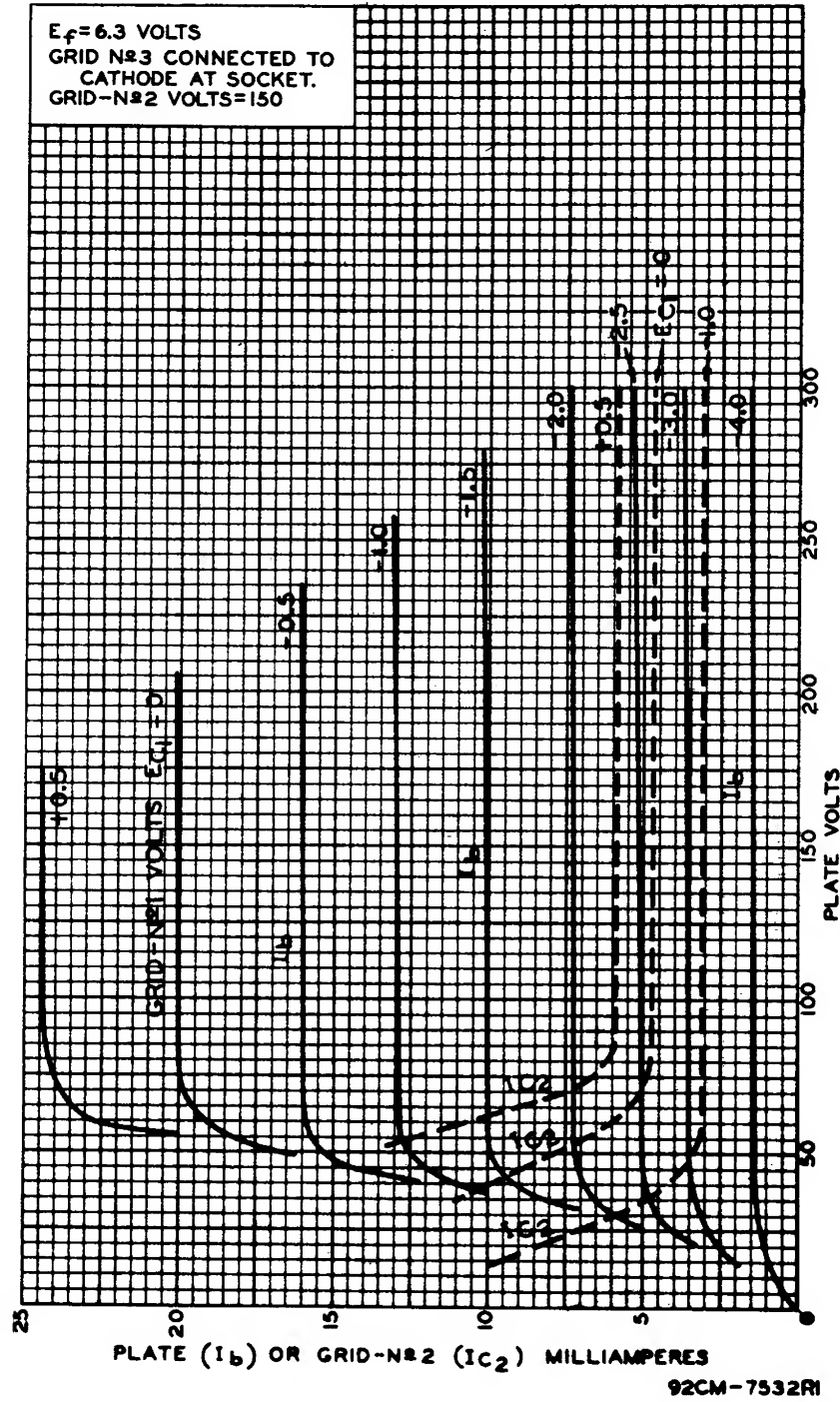
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AVERAGE CHARACTERISTICS Pentode Unit

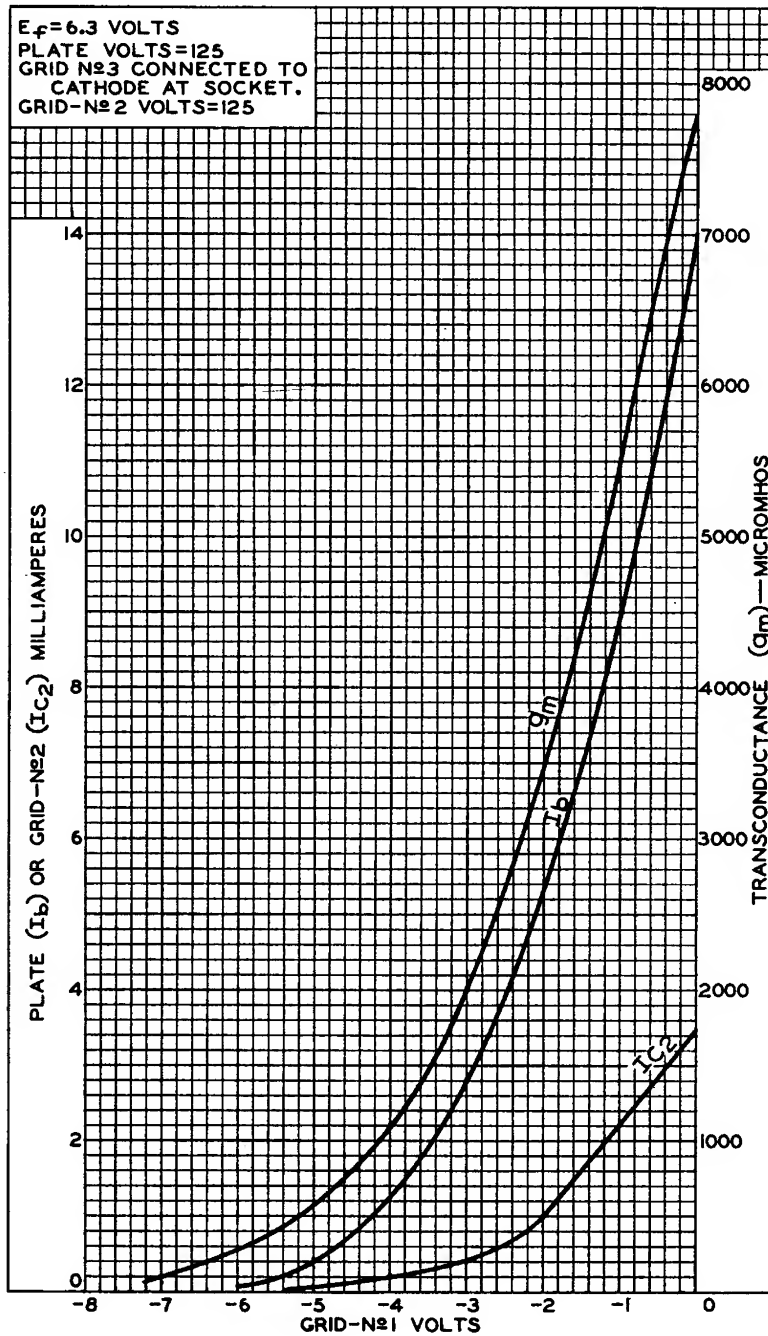


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DATA 3
 8-60

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AVERAGE CHARACTERISTICS Pentode Unit



92CM-10810

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